

CLAIMS

What is claimed is:

1. A method treating virus-induced and inflammatory diseases of skin and membranes in humans or animals, comprising topical application of a composition comprising of one or more of the monounsaturated alcohols octadecenol, eicosenol, docosenol, and tetracosenol in a concentration of from 0.1 to 25 percent by weight in a physiologically compatible carrier to the inflamed skin or membrane of the patient to be treated.
2. The method of claim 1 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
3. The method according to claim 1 wherein the composition further comprises one or more of the mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
4. The method of claim 1 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
5. The method of claim 2 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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6. The method of claim 3 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

7. A method treating virus-induced and inflammatory diseases of skin and membranes in humans or animals, comprising topical application of a composition comprising of one or more of the monounsaturated alcohols docosenol, tetracosenol and hexacosenol in a concentration of from 0.1 to 25 percent by weight in a concentration of from 0.1 to 25 percent by weight, all in a physiologically compatible carrier to the inflamed skin or membrane of the patient to be treated.

8. The method of claim 7 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

9. The method of claim 7 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

10. The method of claim 7 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

11. The method of claim 8 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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12. The method of claim 9 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

13. A method of treating humans or other mammals for viral infections, comprising intravenous introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.

14. The method of claim 13 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x-$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

15. The method of claim 13 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x-$ and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

16. The method of claim 13 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

17. The method of claim 14 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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18. The method of claim 15 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

19. A method of treating humans or other mammals for viral infections, comprising intramuscular introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.

20. The method of claim 19 wherein the composition further comprises one or more of the salts of fatty acids according to the formula R¹-COO⁻M⁺, wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12 and M⁺ is a monovalent alkali metal ion.

21. The method of claim 19 wherein the composition further comprises mixed esters according to the formula R¹-COO-R², wherein R¹ comprises CH₃-(CH₂)₇-CH=CH-CH₂-(CH₂)_x, and x is 6, 8, 10 and 12, and R² is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

22. The method of claim 19 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

23. The method of claim 20 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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24. The method of claim 21 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

25. A method of treating humans or other mammals for viral infections, comprising trans-mucus membranal introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.

26. The method of claim 25 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^+M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

27. The method of claim 25 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

28. The method of claim 25 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

29. The method of claim 26 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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30. The method of claim 27 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

31. A method of treating humans or other mammals for viral infections, comprising transdermal penetration into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.

32. The method of claim 31 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

33. The method of claim 31 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

34. The method of claim 31 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

35. The method of claim 32 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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36. The method of claim 33 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

37. A method of preventing or inhibiting the infection of humans or other mammals for viral infections, comprising intravenous introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible carrier.

38. The method of claim 37 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

39. The method of claim 37 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2\text{)}_7\text{-CH=CH-CH}_2\text{-(CH}_2\text{)}_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

40. The method of claim 37 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

41. The method of claim 38 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

42. The method of claim 39 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
43. A method of preventing or inhibiting the infection of humans or other mammals for viral infections, comprising intramuscular introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.
44. The method of claim 43 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.
45. The method of claim 43 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.
46. The method of claim 43 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
47. The method of claim 44 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

48. The method of claim 45 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

49. A method of preventing or inhibiting the infection of humans or other mammals, comprising trans-mucus membranal introduction into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.

50. The method of claim 49 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

51. The method of claim 49 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

52. The method of claim 49 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

53. The method of claim 50 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

54. The method of claim 51 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

55. A method of preventing or inhibiting the infection of humans or other mammals, comprising transdermal penetration into the human or other mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols in a physiologically compatible carrier.

56. The method of claim 55 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^+M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

57. The method of claim 55 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

58. The method of claim 55 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

59. The method of claim 56 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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60. The method of claim 57 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

61. A physiologically compatible solution which can be injected into humans or other mammals for viral infections intravenously or intramuscularly consisting essentially of a composition consisting of one or more C₁₈ to C₂₄ monounsaturated alcohols in a physiologically compatible, intravenously or intramuscularly injectable carrier.

62. The method of claim 61 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

63. The method of claim 61 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

64. The method of claim 61 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

65 The method of claim 61 wherein said alcohols are comprised of relative proportions of
octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and
tetracosenol is about 9%.

66. The method of claim 61 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

67. A physiologically compatible transdermal medication for introduction through the mucous membranes into humans or other mammals for viral infections consisting essentially of a composition consisting of one or more C_{18} to C_{24} monounsaturated alcohols and a penetration-enhancing compound.

68. The method of claim 67 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

69. The method of claim 67 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

70. The method of claim 67 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

71. The method of claim 68 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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72. The method of claim 69 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

73. A method of preventing conception and reducing the risk of viral infection comprising introducing a composition consisting essentially of one or more monounsaturated alcohols having from 18 to 24 carbons in a suitable carrier into the vagina substantially contemporaneously with or before intercourse.

74. The method of claim 73 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1 \text{COO}M^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

75. The method of claim 73 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

76. The method of claim 73 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

77. The method of claim 74 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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78. The method of claim 75 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

79. An anti-viral suppository for trans-membranal introduction into the vagina or anus of a human or other mammal of a composition consisting essentially of one or more monounsaturated alcohols having from 18 to 24 carbons in a physiologically acceptable carrier which is a solid at ambient room temperature and which melts at approximately 37°C.

80. The method of claim 79 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1\text{-COO}^-\text{M}^+$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

81. The method of claim 79 wherein the composition further comprises mixed esters according to the formula $R^1\text{-COO-R}^2$, wherein R^1 comprises $\text{CH}_3\text{-(CH}_2)_7\text{-CH=CH-CH}_2\text{-(CH}_2)_x\text{-}$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

82. The method of claim 79 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

83. The method of claim 80 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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84. The method of claim 81 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

85. A method of treating humans and mammals for viral infections comprising introducing a composition consisting essentially of one or more monounsaturated alcohols having from 18 to 24 carbons through a membrane into the circulatory system of a human or mammal suspected of having a viral infection with an effective amount of from about 0.1 mg to about 2 gm per 50 kg of body weight comprising inserting such alcohol composition in a physiologically acceptable liquid, cream, gel or suppository carrier into the anus or vagina of the human or mammal to be treated.

86. The method of claim 85 wherein the composition further comprises one or more of the salts of fatty acids according to the formula $R^1-COO^-M^+$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12 and M^+ is a monovalent alkali metal ion.

87. The method of claim 85 wherein the composition further comprises mixed esters according to the formula $R^1-COO-R^2$, wherein R^1 comprises $CH_3-(CH_2)_7-CH=CH-CH_2-(CH_2)_x$, and x is 6, 8, 10 and 12, and R^2 is an alkyl group or other aliphatic group, preferably of 1 to 12 carbon atoms.

88. The method of claim 85 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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89. The method of claim 86 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.
90. The method of claim 87 wherein said alcohols are comprised of relative proportions of octadecenol is about 1%, eicosenol is about 44%, docosenol is about 45%, and tetracosenol is about 9%.

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